

Description of a new species of *Eunaticina* (*Gennaeosinum*), with notes on some other members of the subgenus (Mollusca: Gastropoda: Naticidae)

by

R. N. Kilburn

(Natal Museum, Pietermaritzburg)

ABSTRACT

Eunaticina (*Gennaeosinum*) *mienisi* from the northern Red Sea is described. The holotypes of *E. (G.) peleum* (Iredale, 1929) and *E. (G.) intercisum* are refigured and redescribed, and *Teinostoma emmeles* Melvill, 1910, is transferred to *Eunaticina* (*Gennaeosinum*).

In my 1976 revision of the southern African Naticidae the name *Gennaeosinum* Iredale, 1929, was utilised as a subgenus of *Eunaticina* Fischer, 1885, to include species in which the umbilical funicle terminates in a callus pad. Subsequently Dr H. K. Mienis forwarded material representing an undescribed taxon from the Red Sea, together with an example of '*Teinostoma*' *emmeles* Melvill, 1910, which is clearly congeneric. Through the kindness of Mr Ian Loch and Dr Winston Ponder of the Australian Museum I was able to examine the holotypes of two inadequately described Australian members of the subgenus, including the type species, *G. peleum* Iredale, 1929.

***Eunaticina* (*Gennaeosinum*) *mienisi* sp. n.**

Figs 1–4

Diagnosis: Spire rather elevated, height/length subequal; funicle strong, angular, terminating in a prominent, acutely triangular pad, projecting at least to midpoint of umbilical opening; sculpture of shallow spiral sulci, about 12 on penultimate whorl, on 1st whorl restricted to subsutural region; white with three rows of diffuse, pale orange-brown spots on body whorl, first protoconch whorl yellow; maximum length 8,7 mm.

Description: Shell rather thick, spire bluntly orthoconic, suture narrowly channelled, spire whorls gently convex, declivously flattened below subsutural berm, periphery of each spire whorl basal; body whorl with well-rounded, median periphery, base rather concave; teleoconch whorls about 3 in number. Aperture elliptical, slightly constricted above, with a shallow anal furrow; labrum strongly prosocline and sinuous in side-view; labium very gently and evenly curved, with a thick callus, adnate to body whorl in parietal region but at termination of umbilical funicle forming a pointed, triangular lobe, which may project more than half-



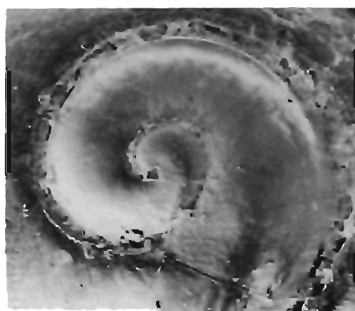
1



2



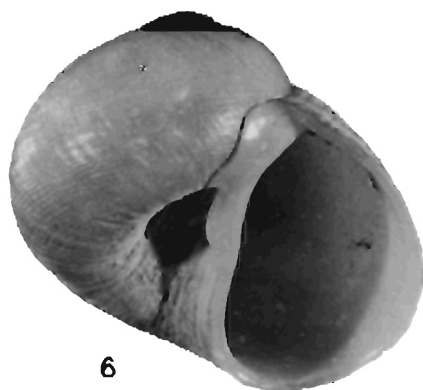
3



4



5



6

Figs 1-6. *Eunaticina* (*Gemmaeosinum*) *mienisi* sp. n., holotype. 1-2 Shell, 8,7 × 8,7 mm. 3-4. SEM of operculum and protoconch respectively. 5. *E. (G.) peleum* (Iredale, 1929), holotype, 15,0 × 15,9 mm. 6. *E. (G.) intercisum* (Iredale, 1931), holotype, 13,0 × 13,0 mm.

way across umbilical opening. Umbilicus wide and deep, with rounded margins, its inner wall with an angular, transversely pliculate funicular ridge.

Adult sculpture of shallow spiral sulci, deepest and widest below suture of body whorl (where each groove may bear a very fine interstitial thread), becoming progressively finer and closer towards base, and feeble within umbilicus; 1st teleoconch whorl smooth save for strong growth-lines and 3–4 shallow subsutural grooves; additional grooves develop subsequently and on penultimate whorl grooves number about 12, on body whorl totalling about 37–44; growth-lines regular and somewhat pliculate throughout, pricking the grooves and rendering their intervals somewhat wavy.

Colour white, body whorl with three spiral series of diffuse, irregular, pale Range: Known only from Gulf of Elat, northern Red Sea.

Type material: Holotype HUI 20,310, Elat, B. Sheinberg. Three paratypes HUI 10,331, one paratype NM G8995/T2166, Coral Beach, Elat, E. Tchernov, 1964.

Notes: This species resembles a miniature *E. peleum* (Iredale, 1929) in sculpture and colour-pattern, but differs in its higher spire, stronger spiral sculpture on the early whorls and the sharply triangular funicular pad. *E. (G.) pomatiella* (Melvill, 1893) from India has weaker sculpture, lacks colour pattern and has a very weak funicular callus lobe (holotype examined, BM (NH) 93.2.16.1). *E. (G.) linguifera* (Thiele, 1925) from the Zanzibar Channel is a much more depressed species, without the obtusely conical spire and declivous outer lip of *mienisi*; furthermore the types of *linguifera* had already developed an umbilical funicle and well developed columella lobe by the end of the first teleoconch whorl, whereas juvenile specimens of *mienisi* of two teleoconch whorls have not yet developed any indication of a funicle and show only a weakly expanded callus.

Eunaticina (Gennaeosinum) peleum (Iredale, 1929)

Fig. 5

Gennaeosinum peleum Iredale, 1929: 279, pl. 31, fig. 12. Type locality: Michaelmas Cay, N.E. of Cairns, North Queensland.

The following notes are based on the holotype and two juveniles: Shell slightly wider than long, sutures narrowly channelled, 1st teleoconch whorl with 10–12 very close, flattened spiral threads, of which there are 9–10 on penultimate whorl, these threads being more convex and widely-spaced subsuturally than elsewhere, and finest below periphery of body whorl (where they number about 30); interstices pricked by fine, oblique axial threads, strongest in the umbilical region (which is also entered by the spiral sculpture); funicle strong, somewhat rounded, bearing spiral lirae and transverse threads, funicular pad a bluntly rounded lobe. Glossy white, with three rows of diffuse brown spots, the upper one visible on spire whorls; early whorls tinged with brown. Protoconch of just over 2 whorls, white with an orange-brown nucleus, maximum breadth 1 mm. Dimensions: 15,0 × 15,9 mm (holotype). Operculum as in *E. mienisi*.

Material examined: Holotype (AMS C57811); one topotype, intertidal, living, taken at night (AMS C105415: I. Loch); East Cape, Papua New Guinea (AMS C107458: H. T. William).

E. peleum is very similar to *E. (G.) kraussi* (E. A. Smith, 1902) of the southwestern Indian Ocean, but has a lower spire and coarser spiral sculpture.

Eunaticina (Gennaeosinum) intercisum (Iredale, 1931)

Fig. 6

Gennaeosinum intercisum Iredale, 1931: 217, pl. 23, figs 13, 14. Type locality: Sydney Harbour, New South Wales.

The following details were noted in a study of the holotype: 1st teleoconch whorl smooth save for shallow axial furrows; from 2nd whorl there are fine, rather wavy spiral striae, forming distinct threads below suture and on base of body whorl, rendered somewhat undulating on base by fine axial threads; funicle broadly rounded, almost obsolete, terminal pad forming a small lobe. Protoconch of about 2 whorls, sutures very deep; uniform white; maximum breadth 1,00 mm. Dimensions of holotype: 13,0 × 13,0 mm.

Material examined: Holotype (AMS C57783).

Remarks: The irregular and shallowly incised nature of the spiral striae render them very difficult to count. *E. intercisum* resembles *E. kraussi*, but its weak funicle and terminal pad, and the stronger subsutural and basal threads distinguish it.

Eunaticina (Gennaeosinum) emmeles (Melvill, 1910) **comb. n.**

Teinostoma emmeles Melvill, 1910: 6, pl. 1, figs 8a, b. Type locality: Henjam Island, Persian Gulf.

Notes: A specimen from Jebel-a-Tair, Kamaran Islands, Yemen, in 60 m (HJ 10,196: O. H. Oren) agrees very closely with Melvill's excellent figures. His description is fairly detailed, although the measurements are reversed. In the present example (which measures 4,2 × 4,9 mm) the protoconch is well-defined, of slightly over two whorls, smooth except for a short series of terminal axial plicules, 1st protoconch whorl orange, remainder white, maximum breadth 1,2 mm. First teleoconch whorl with 15 spiral lirae.

Although Melvill referred his species to *Teinostoma* (family Tornidae), he noted its resemblance to several other genera, including *Eunaticina*. Although the shell is proportionally much thicker than in any previously known member of the latter genus, it otherwise agrees substantially.

Eunaticina (Gennaeosinum) kraussi (E. A. Smith, 1902)

Eunaticina (Gennaeosinum) kraussi; Kilburn, 1976: 871, figs 22a, b.

Two further records of this rare species are worth reporting: off Durban, 20 m, sand (NM D2225: ORI); off Durban Bluff, 20–22 m, sand (NM: R. K., R. Fregona).

ABBREVIATIONS

AMS	= Australian Museum, Sydney
HJ	= Hebrew University, Jerusalem
NM	= Natal Museum, Pietermaritzburg
ORI	= Oceanographic Research Institute, Durban.

REFERENCES

- IREDALE, T. 1929. Queensland molluscan notes. No. 1. *Mem. Queensl. Mus.* **9**(3): 261–297.
——— 1931. Australian molluscan notes. No. 1. *Rec. Austral. Mus.* **18**(4): 201–235, pls. 22–25.
KILBURN, R. N. 1976. A revision of the Naticidae of southern Africa and Mozambique. *Ann. Natal Mus.* **22**(3): 829–884.
MELVILL, J. C. 1910. Descriptions of twenty-nine species of marine Mollusca from the Persian Gulf, Gulf of Oman and North Arabian Sea, mostly collected by Mr F. W. Townsend, of the Indo-European Telegraph Service. *Ann. Mag. nat. Hist.* [8]**6**(31): 1–17, pls. 1–2.

Date received: 18 November 1987.